



# **NOXIOUS WEED SEEDS – ASTA'S PROGRAM FOR MEMBER ASSISTANCE**

---

John Hallagan  
10 October 2018



# Some Difficult Issues

The spice industry has to deal with some difficult issues resulting from antiquated laws and regulations

- Pesticides
- Prop 65
- Noxious weed seeds



# The ASTA Program

Over the years, ASTA has focused on providing assistance to members regarding enforcement activities by USDA resulting from the presence of noxious weed seeds in imported spices.

- Over the past 20 years, this focus has varied depending on the level of enforcement actions that most often involve detention and the opportunity for remediation and reconditioning.

Because comprehensive information was not readily available on noxious weed seed enforcement and remediation, and existing methods for remediation are not entirely satisfactory, the ASTA Board authorized a program to address these concerns.

- A variety of alternatives were considered ranging from seeking legislative changes to ASTA sponsoring devitalization verification studies itself.



# The ASTA Program

The ASTA Board of Directors authorized a program to accomplish the following goals:

1. To work with the Plant Protection and Quarantine division (PPQ) of the Animal and Plant Health Inspection Service (APHIS) of the U.S. Department of Agriculture (USDA) to identify information resources for ASTA members to assist in their compliance activities.
  2. To identify an expert for ASTA members to work with to develop testing protocols and studies for additional devitalization methods for inclusion in the USDA Treatment Manual with such studies to be sponsored by private parties with an interest in the validation of new methods.
- The ASTA Board realized that the conduct of validation studies would be too expensive for ASTA to sponsor.



# Definition of noxious weeds

Noxious weeds are defined in the Federal Noxious Weed Act of 1974 as:

(A)ny living stage (including but not limited to, seeds and reproductive parts) of any parasitic or other plant of any kind ... which is of foreign origin, is new to or not widely prevalent in the United States, and can be directly or indirectly injure crops, other useful plants, livestock or poultry or other interests of agriculture, including irrigation, or navigation or the fish or wildlife resources of the United States or public health.

- Noxious Weed Act was superseded by the Plant Protection Act of 2000 but the definition remains the same.

USDA Animal and Plant Health Inspection Service (APHIS) and the APHIS Plant Protection and Quarantine (PPQ) division have responsibility.

- Other agencies are required by statute to participate in control efforts – BLM, NPS, USFS

Key regulations at 7 CFR Part 360



# Federal Noxious Weed Policy

The mission statement for APHIS implementation and management of the federal noxious weed policy:

APHIS will use science-based methods to prevent the introduction of parasitic-plant pests and Federal noxious weeds (including those already regulated and candidates for regulation) into the United States. APHIS will exclude, detect and eradicate newly introduced weeds that pose the highest risk to U.S. agriculture or the environment.

- APHIS emphasized to ASTA that the statute governing their noxious weed activities is a “zero-tolerance” statute that gives them little flexibility regarding the presence of noxious weed seeds in spices
- Permits are required to transport seeds



# Federal Noxious Weeds

Federal law requires APHIS to develop and maintain a list of noxious weeds subject to regulation and control under the Plant Protection Act.

- Criteria for listing include characteristics of weeds and potential to harm agriculture
- The seeds of these “federal noxious weeds” are subject to tight control in terms of transport for any purpose – commerce or study.

The current list of federal noxious weeds includes several which have been a focus of APHIS enforcement efforts for spices, most prominently onionweed (*Asphodelus sp.*) and dodder (*Cuscuta sp.*) which, according to APHIS, have resulted in the most common cause for enforcement for imported spices.

- About twenty other noxious weed seeds were identified by APHIS as also resulting in enforcement actions for spices.
- Origins of noxious weed seeds: India, Pakistan, Turkey, Egypt, and China, among a number of other countries





# Federal Noxious Weeds and Spices

Spices most commonly subject to detention are:

- Cumin
- Oregano
- Rosemary
- Sage

Other spices that have been the subject of enforcement action include mint, thyme, dill, coriander, basil, fenugreek, poppy seed, anise, caraway, celery seed, and fennel.





# Cumin!



# *Asphodelus fistulosus* - Onionweed



# Cumin Seed



## *Cuscuta* spp. - Dodder



# Coriander Seed





## *Tribulus terrestris* - Goathead





## *Tribulus terrestris* - Goathead





# Prevention and Remediation

Keep in mind that APHIS policy is “zero tolerance”

Prevention of contamination of spices with noxious weed seeds is very important.

- When possible, depending on circumstances and the spice, prevention methods should be employed such as weed control and other agronomy practices, and post-harvest cleaning to remove noxious weed seeds, depending on species and circumstances.

If imported spice is detained by APHIS for the presence of noxious weed seeds then remediation must be employed or spice will be denied entry.



# Remediation

Remediation methods currently approved are:

- Cleaning not available for most spices but permitted under APHIS supervision for shipments from Canada of agricultural seeds which includes some items on the ASTA spice list – 7 CFR Sec. 361.8
- Grinding to specified mesh sizes depending on the noxious weed – details in the USDA Seeds Not for Planting Manual.
- Steam/heat for *Dodder* – details in the USDA Treatment Manual



# Need for New Remediation Methods

Devitalization methods now are limited to:

- Grinding for all spices and all noxious weed seeds
- Steam/heat for all spices but only for Dodder

These methods are not compatible for maintaining the commercial value for some spices



# The ASTA Program

Two elements to the ASTA noxious weed seed program

1. Information provided to members on noxious weed seed matters with comprehensive report available on the ASTA website
2. Resources to facilitate the pursuit of additional noxious weed seed devitalization methods
  - ASTA will provide “seed” financial support for efforts



# The ASTA Program – Information Resources

1. Comprehensive report will be posted to the ASTA website with information on USDA APHIS PPQ statutory and regulatory authorities, policies, and guidance.
  - Key documents will be provided through text links including USDA Treatment Manual, APHIS Seeds Not for Planting Manual, federal noxious weed list and other helpful documents.
2. ASTA General Counsel (John Hallagan) and ASTA's expert consultant on noxious weed seed matters, George Beck, Ph.D. of Colorado State University are available for discussion.



# The ASTA Program – Additional Devitalization Methods

The ASTA Board explored various ways to accomplish the inclusion of new devitalization methods and determined to move forward as follows given the understanding that ASTA cannot afford to finance studies itself:

- Identify an expert consultant to work with APHIS to identify acceptable protocols for validation studies – George Beck, Ph.D. of CSU.
- Dr. Beck met with and had discussions with APHIS staff in Research Triangle, North Carolina
- Draft protocols have been developed with further discussion with APHIS needed to iron out details for studies which will depend on methods to be pursued and noxious weeds targeted.
- Possible methods discussed include heat/steam, EtO, irradiation, freezing
- Discussions on possible surrogate noxious weed species suggests that this may be possible.



# The ASTA Program – Additional Devitalization Methods

How would this work should a company wish to pursue new devitalization methods?

- Contact John Hallagan who will facilitate discussions with Dr. Beck
- Dr. Beck will advise company on how to proceed, assisting with discussions with APHIS on proposed study protocols
- Company can decide whether to retain Dr. Beck to move studies forward
- If APHIS approves specific protocols company can conduct validation studies with assurance of informed evaluation by APHIS.
- If Aphis approves method then obtain inclusion in the USDA Treatment Manual



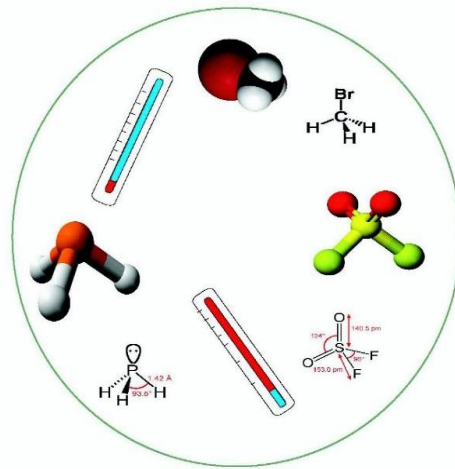


# The ASTA Program – Additional Devitalization Methods



United States Department of Agriculture

## Treatment Manual





# QUESTIONS?

---

Thank you!

John Hallagan

[Hondobear@aol.com](mailto:Hondobear@aol.com)

202.331.2333

